

Application No. 10/538,383; Group Art Unit 1621
Response dated April 10, 2007
Response to Office Action dated January 11, 2007

Amendments to the Claims

In the Claims:

The "Listing of Claims" herein replaces all prior listings and versions of the claims in the application.

Listing of Claims:

Claims 1-3 (Canceled)

4. (Previously presented): A high yield process for the production of conjugated linoleic acid having a high degree of conjugated double bonds, purity and cold temperature stability, said process comprising
 - (a) isomerizing linoleic acid lower alkyl esters containing 1 to 5 carbon atoms in a linear or branched alkyl chain in the presence of an alkali metal alcoholate to yield highly conjugated linoleic acid esters,
 - (b) saponifying the highly conjugated linoleic acid esters to yield the highly conjugated linoleic acids, and
 - (c) crystallizing the highly conjugated linoleic acids one or more times.
5. (Previously presented): A process according to claim 4, wherein the crystallization step (c) is carried out at temperatures below 10°C.
6. (Currently amended): A process according to claim 4, wherein ~~that~~ the crystallization step (c) is carried out at temperatures below 6°C.
7. (Previously presented): A process according to claim 4, further comprising distilling the crystallized highly conjugated linoleic acids obtained in step (c) to remove oligomer impurities.

Application No. 10/538,383; Group Art Unit 1621
Response dated April 10, 2007
Response to Office Action dated January 11, 2007

8. (Previously presented): A process according to claim 4, wherein the isomerization step (a) is carried out at temperatures of 100 to 130°C.

9. (Previously presented): A process according to claim 4, wherein the linoleic acid lower alkyl esters have the formula (I):



in which R¹CO is the acyl residue of a linoleic acid and R² is a linear or branched C₁₋₅ alkyl group.

10. (Currently amended): A process according to claim 9, wherein acyl residues of a the linoleic acid are isomerized to conjugated linoleic acid in (a).

11. (New): A process according to claim 9, wherein R² is methyl and/or ethyl.

12 (New): A process according to claim 4, wherein the alkali metal alcoholate is a C₁₋₁₀ alkali metal alcoholate.

13. (New): A process according to claim 12, wherein the alkali metal alcoholate is selected from the group consisting of potassium methanolate, potassium ethanolate, and potassium t-butyrate.

14. (New): A process according to claim 4, wherein the saponification step (b) is carried out at a temperature of from 40° to 90°C.